TOP SECRET

IMAGERY
ANALYSIS
DIVISION

# PIR

## PHOTOGRAPHIC INTELLIGENCE REPORT

[redacted]

PULKOVO ASTRONOMICAL OBSERVATORY
PULKOVO, USSR

Declass Review by
NIMA/DOD

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CIA/PIR 65078

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DATE JAN. 1966
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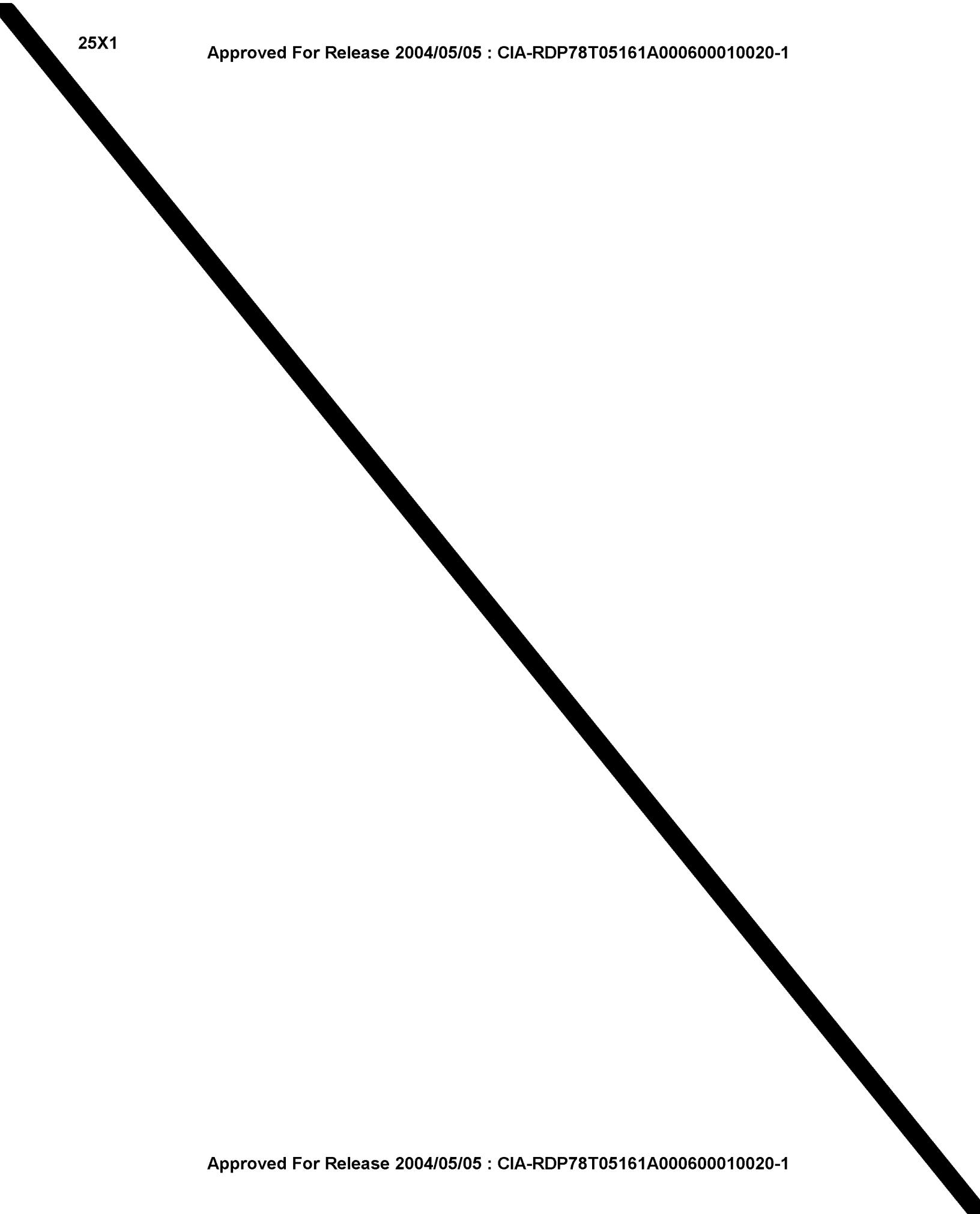

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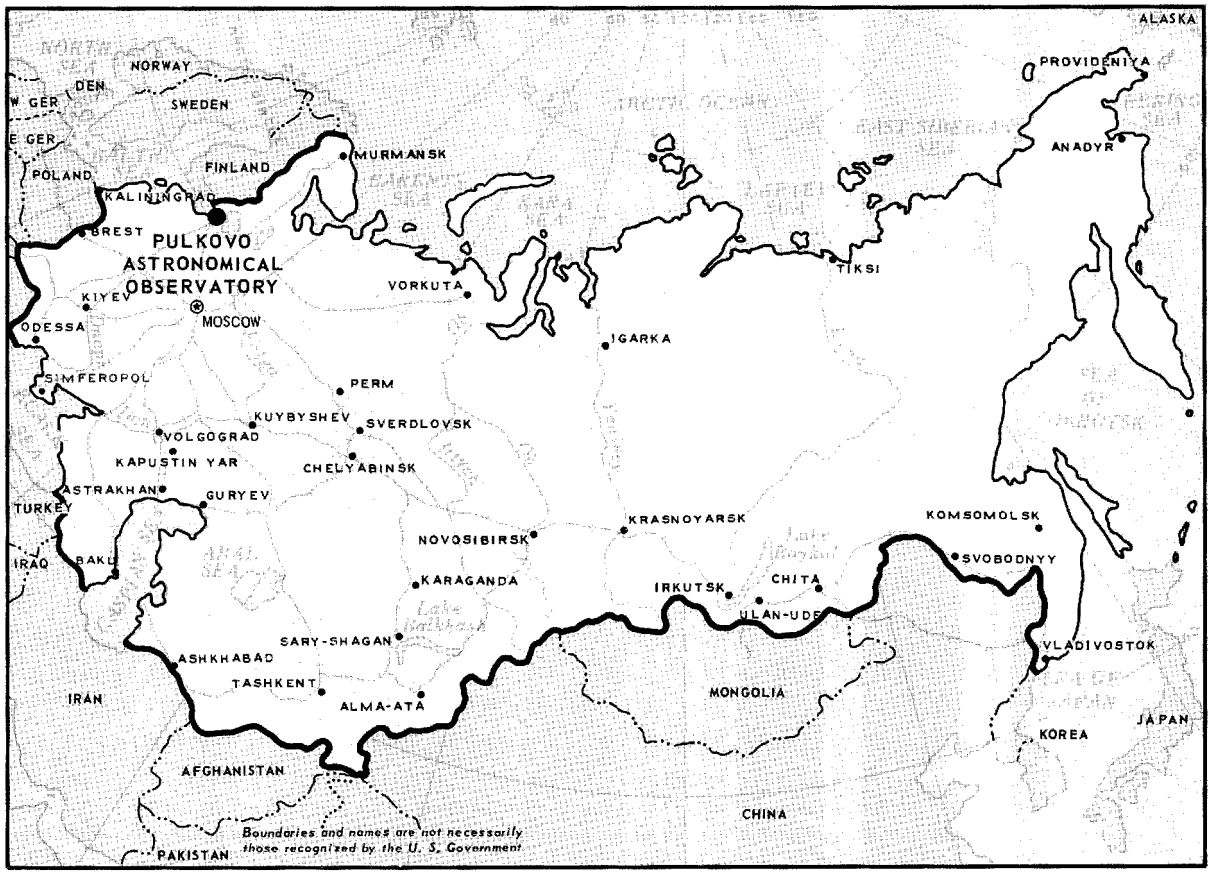


*FIGURE 1.*

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# PULKOVO ASTRONOMICAL OBSERVATORY
# PULKOVO, USSR

The Pulkovo Astronomical Observatory, also known as the Main Astronomical Observatory, Academy of Science, USSR, is located 10 nautical miles south of Leningrad at Pulkovo, USSR (Figure 2). Geographic coordinates for this observatory are 59 46N - 30 19E.

The observatory has facilities for optical as well as radioastronomy observations. Figures 3-5 show the layout of these facilities; Figures 6 and 7 are a line drawing and perspective sketch of this installation, respectively, made by correlating available aerial and ground photography. The annotations for Figure 6 locate and identify major areas and features of the observatory.

The most predominant feature in the radioastronomy area is a large parabolic radiotelescope (item 11, Figure 6). The reflector portion of this radiotelescope consists of approximately 90 plates or panels, arranged along a horizontal parabolic curve and individually adjustable (Figure 7). Measurement of the length of the curve of this radiotelescope on [redacted] (Figure 4), indicates that it is 520 ± 50 feet long. Figures 9 and 10 are ground shots of this radiotelescope.

Figure 10 also shows a portion of a parabolic dish antenna (item 12, Figure 6) situated adjacent to the large parabolic radiotelescope. This antenna is reportedly 12 meters in diameter. Ground photography also indicates that there are a number of smaller radiotelescopes and instruments present in the radioastronomy area.

The optical astronomy area includes a main observatory building with three telescope domes, one large and a number of small observatory buildings, a horizontal solar telescope, two pavilions for meridian instruments, and associated buildings. Figure 11 is a ground photo of one of these pavilions for meridian instruments (item 5, Figure 6). A possible third pavilion for meridian instruments (item 4, Figure 6) appears under construction in the foreground of Figure 12 and to the left in Figure 13. The large observatory (item 2, Figure 6) is in the background in Figure 12.

Examination of all available aerial and ground photography together with comparison of the Soviet plan of the observatory in 1958 (Figure 8) with recent [redacted] photography indicates that construction and expansion

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have taken place from [redacted] Significant changes during this period are noted below:

(1) The large parabolic radiotelescope was in an early stage of construction in [redacted] and was apparently completed by [redacted]

(2) Construction of a cruciform building directly southwest of the horizontal solar telescope (item 8, Figure 6) took place between [redacted] The north-south axis of this building measures 110 ± 15 feet.

(3) A number of buildings (item 7, Figure 6) have been constructed since [redacted] directly east of the main observatory area with further construction in progress as of [redacted]

(4) Construction of a possible third pavilion for meridian instruments (item 4, Figure 6) began prior to [redacted] (Figure 12) with little or no progress made by [redacted] (Figure 13). Examination of available [redacted] photography suggests that this structure had not been completed by [redacted]

(5) A number of small buildings present along the west side of the observatory in [redacted] were later removed.

All measurements have been made by the NPIC Technical Intelligence Division and are considered to be accurate within ± 15 feet or ± 10%, whichever is greater.

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REFERENCES

[redacted]

MAPS OR CHARTS

1. General Locator Map, USSR - (UNCLASSIFIED)
2. U. S. Air Target Chart, Series 200, Sheet 0153-4HL, 2nd Edition, May 1963 - (SECRET)

GROUND PHOTOS

CIA Ground Photos Nos. 139959, 343226, 343227, 369625, 802622, 1027608 (CONFIDENTIAL)

REQUIREMENT

CIA C-SI5-83,087

PROJECT

30488-6

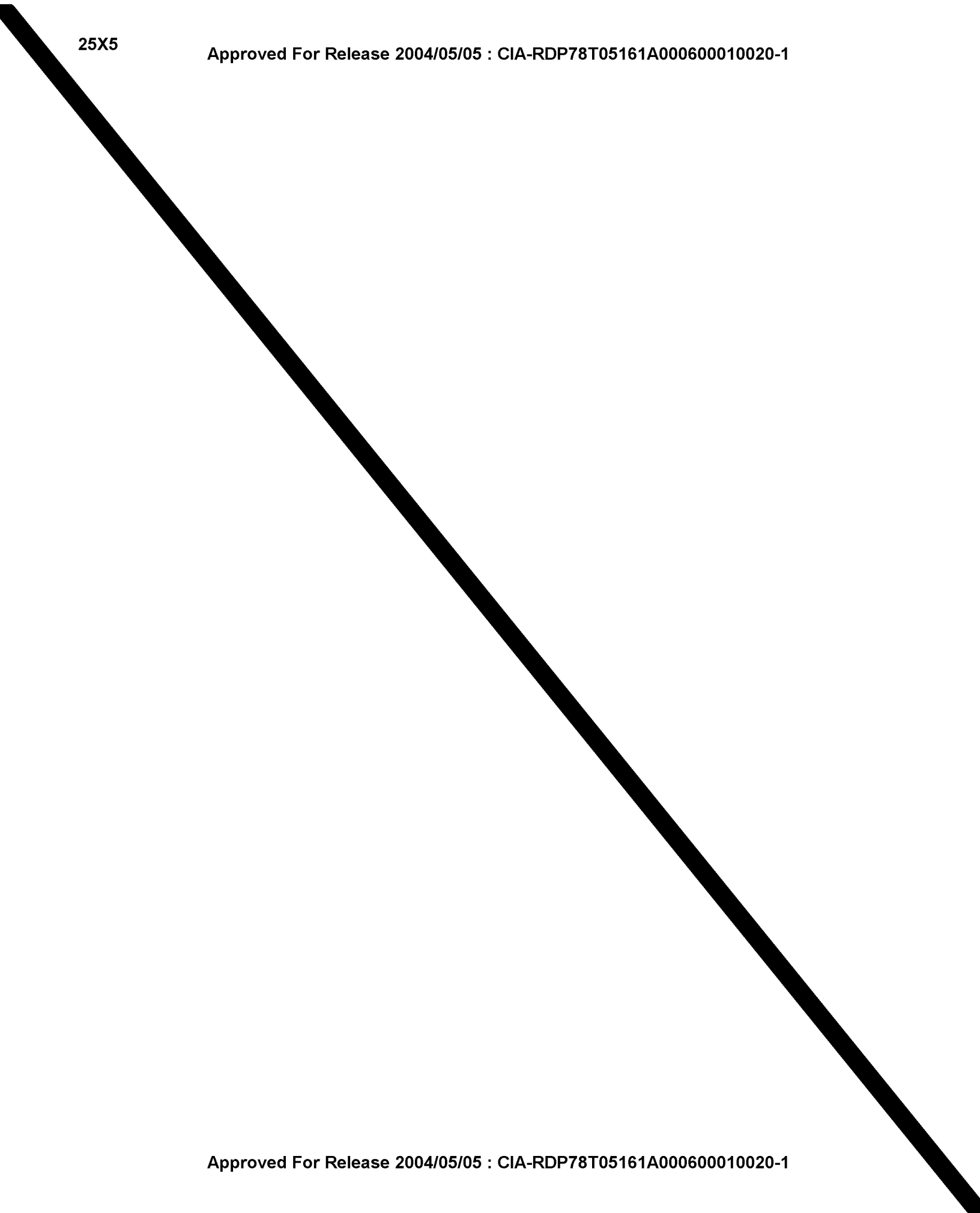

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FIGURE 3. PULKOVO ASTRONOMICAL OBSERVATORY (

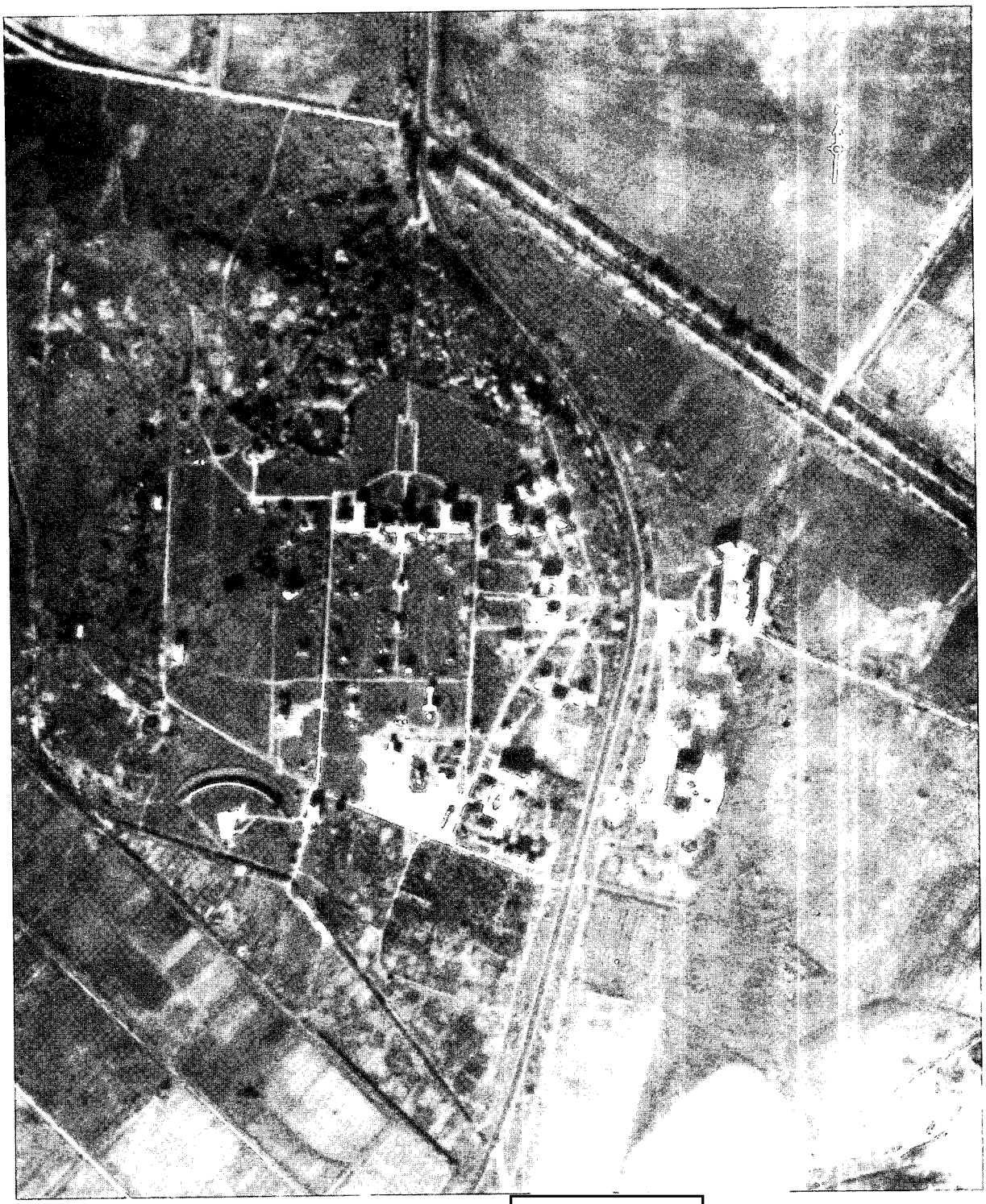


FIGURE 4. PULKOVO ASTRONOMICAL OBSERVATORY

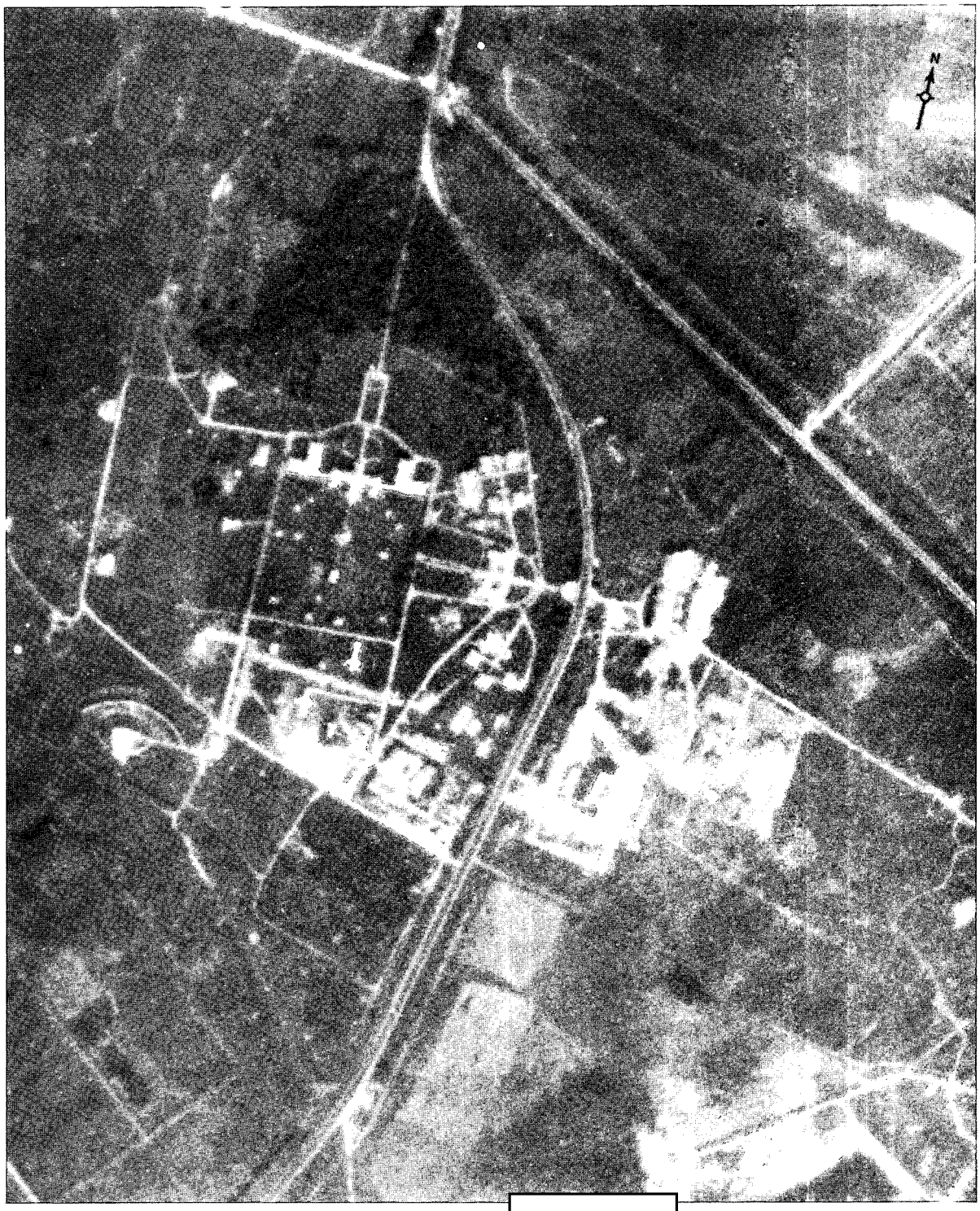
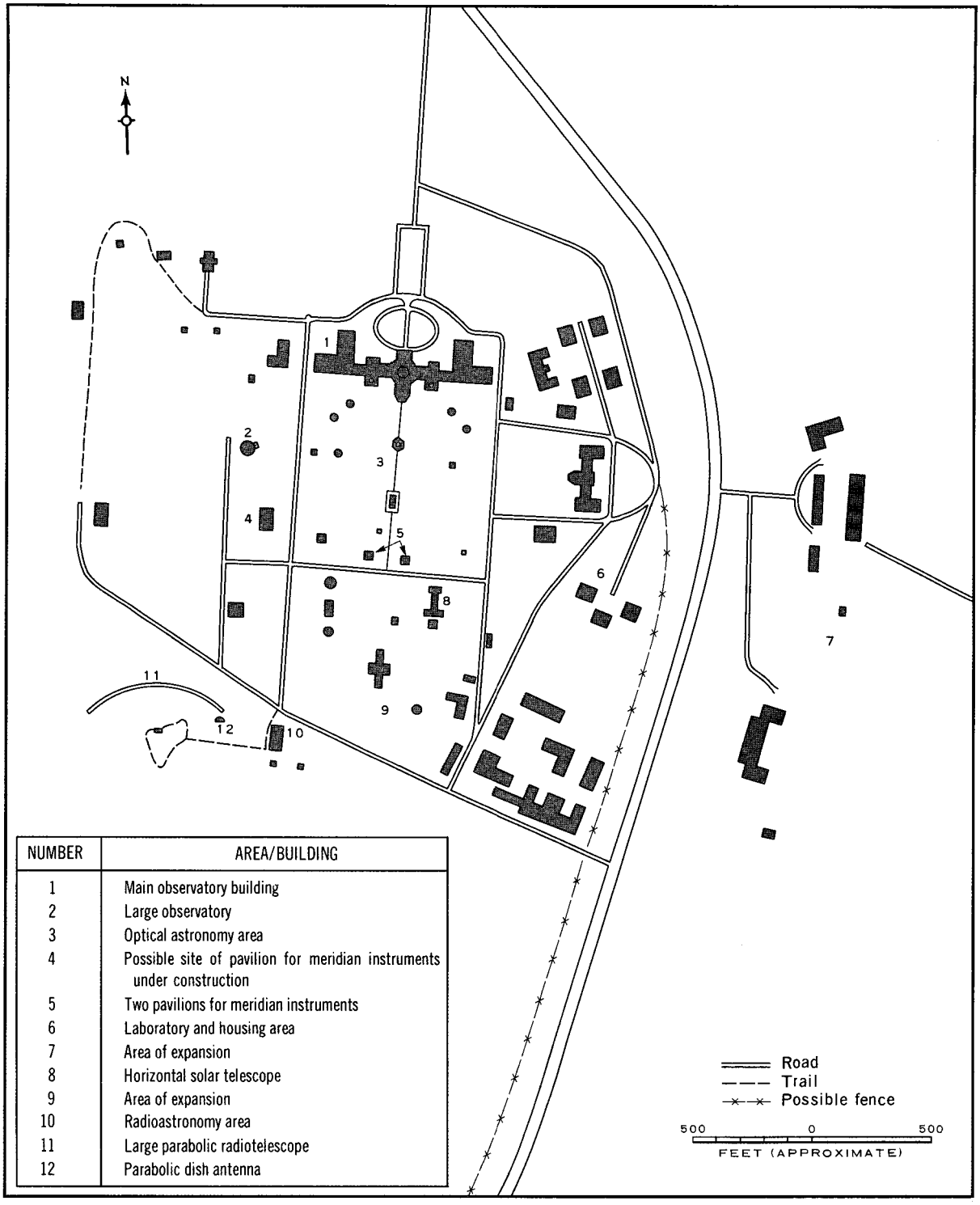



FIGURE 5. PULKOVO ASTRONOMICAL OBSERVATORY




| NUMBER | AREA/BUILDING |
|---|---|
| 1 | Main observatory building |
| 2 | Large observatory |
| 3 | Optical astronomy area |
| 4 | Possible site of pavilion for meridian instruments under construction |
| 5 | Two pavilions for meridian instruments |
| 6 | Laboratory and housing area |
| 7 | Area of expansion |
| 8 | Horizontal solar telescope |
| 9 | Area of expansion |
| 10 | Radioastronomy area |
| 11 | Large parabolic radiotelescope |
| 12 | Parabolic dish antenna |

*FIGURE 6. PULKOVO ASTRONOMICAL OBSERVATORY*

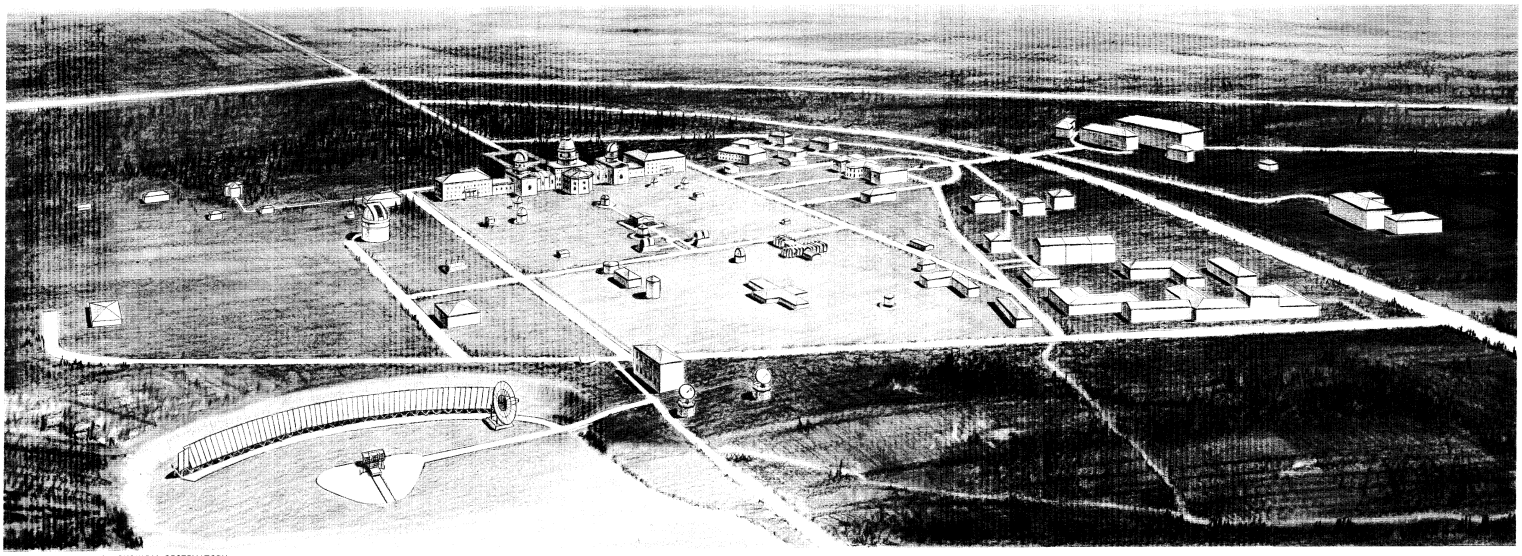


FIGURE 7. PULKOVO ASTRONOMICAL OBSERVATORY.

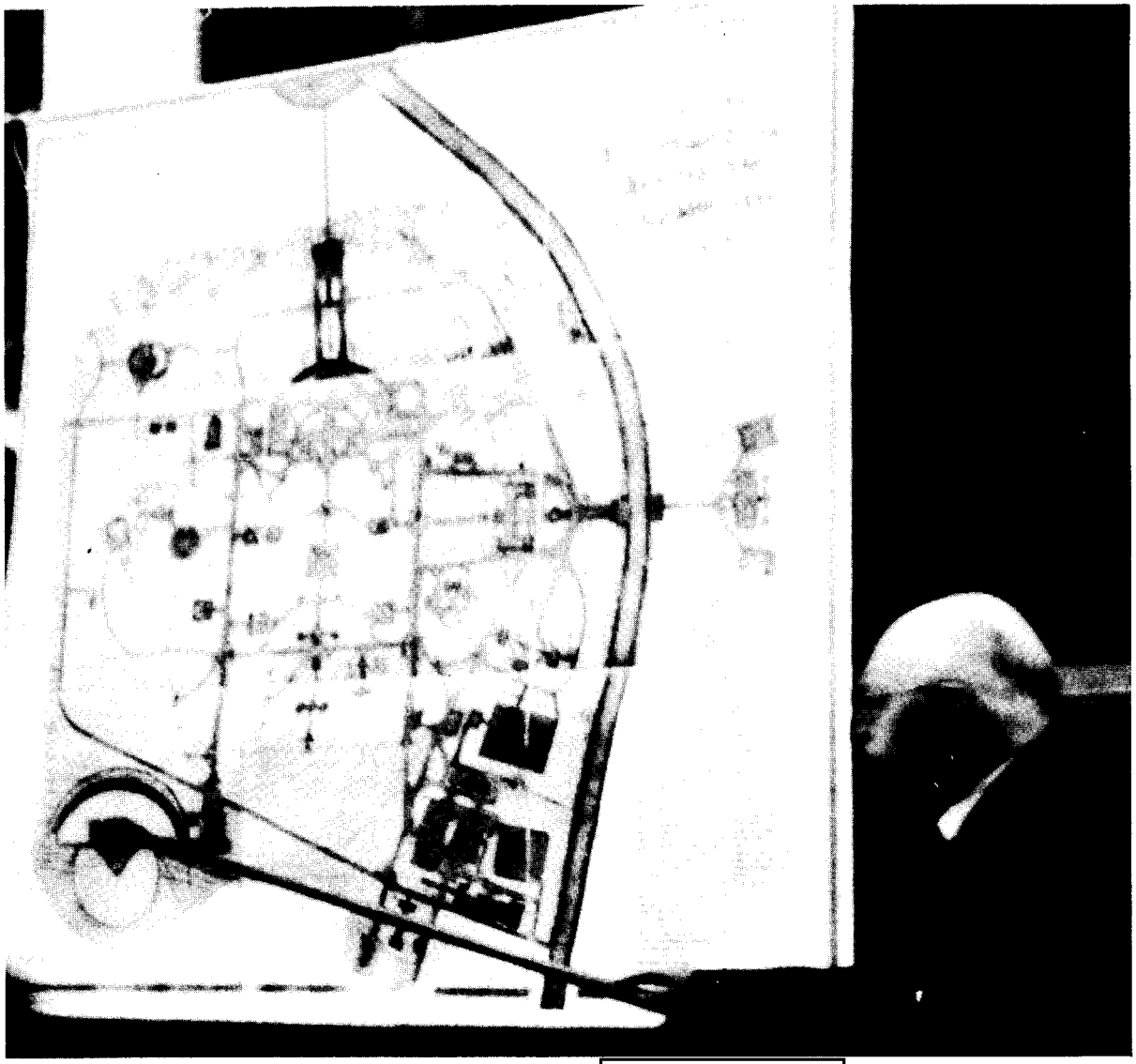


FIGURE 8. PLAN OF PULKOVO ASTRONOMICAL OBSERVATORY

FIGURE 9. LARGE PARABOLIC RADIOTELESCOPE



FIGURE 10. LARGE PARABOLIC RADIOTELESCOPE AND PARABOLIC DISH ANTENNA

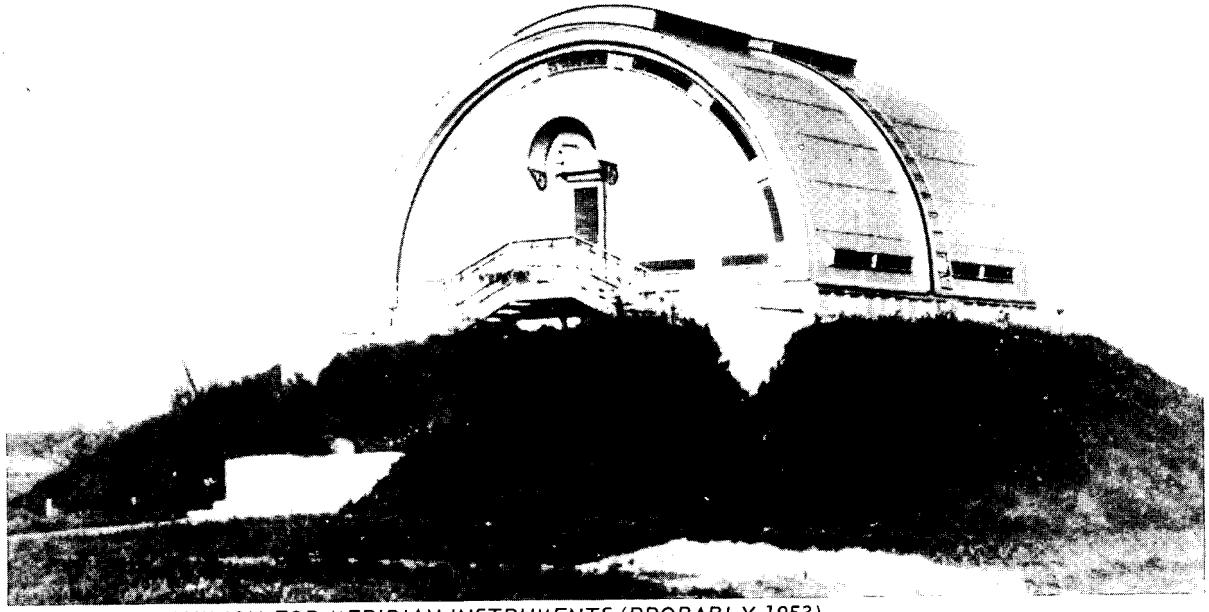


FIGURE 11. PAVILION FOR MERIDIAN INSTRUMENTS (PROBABLY 1953)

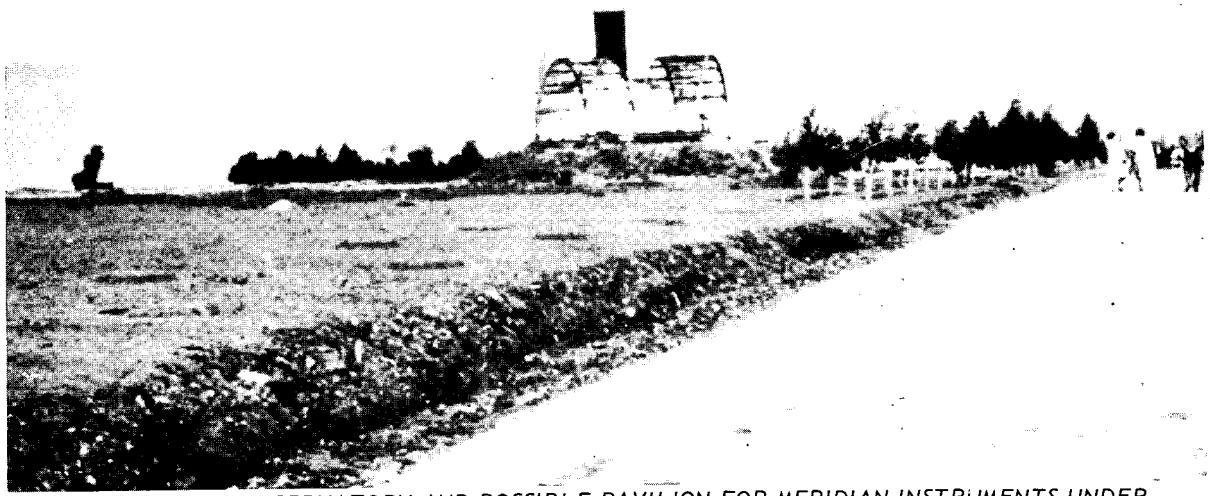


FIGURE 12. LARGE OBSERVATORY AND POSSIBLE PAVILION FOR MERIDIAN INSTRUMENTS UNDER CONSTRUCTION IN FOREGROUND

FIGURE 13. POSSIBLE PAVILION FOR MERIDIAN INSTRUMENTS UNDER CONSTRUCTION (